

**Figure 1**

<b>Proinsulin</b>	<b>C-peptide</b>
<b>Ins_Human</b>	EAEDLQVGQVELGOGPGAGSLQPLALEGSLQ (SEQ ID NO. 1)
<b>Ins Pantr(Chimpanzee)</b>	EAEDLQVGQVELGGGPGAGSLQPLALEGSLQ (SEQ ID NO. 9)
<b>Ins_Aotr (Night monkey)</b>	EAEDLQVGQVELGGGSITGSLPPLEGPMQ (SEQ ID NO. 10)
<b>Ins Macpa (Crabeatingmaoaque)</b>	EAEDPQVGQVELCSGGPGAGSLQPLALEJSLQ (SEQ ID NO. 11)
<b>Ins_Ceraib (Green monkey)</b>	EAEDPQVGQVELGGGPGAGSLQPLALEGSLQ (SEQ ID NO. 12)
<b>Ins Pig</b>	EAENPQAGAVELGGGLGGLQALALEGPPQ (SEQ ID NO. 13)
<b>Ins_Boven</b>	EVEGPQVGALELAGGPGAGGLEGPPQ (SEQ ID NO. 14)
<b>Ins_Horse</b>	EAEDPQVGEVELGGGPGLGGLQPLALAGPQQ (SEQ ID NO. 15)
<b>Ins sheep</b>	EVEGPQVGALELAGGPGAGGLEGPPQ (SEQ ID NO. 16)
<b>Ins Canpa (dog)</b>	EVEDLQVRDVELAGAPGEGGLQPLALEGALQ (SEQ ID NO. 17)
<b>Ins_Rabbit</b>	EVE LQVGQAE LGOGPGAGGLQPSALELALQ (SEQ ID NO. 18)
<b>Ins 1_Rat</b>	EVEDPQYPQLEGGPEAGDLQTLALEVARQ (SEQ ID NO. 19)
<b>Ins2_Rat</b>	EVEDPQVAQLELGGGPGAGDLQTLALEVARQ (SEQ ID NO. 20)
<b>Ins Rodsp (rodent sp)</b>	EVEDPQVGQVELGAGPGAGSEQTLALEVARQ (SEQ ID NO. 21)
<b>Ins1_mouse</b>	EVEDPQVEQLELGGSPGDLQTLALEVARQ (SEQ ID NO. 22)
<b>Ins2_Mouse</b>	EVEDPQVAQLELGGGPGAGDLQTLALEVAQQ (SEQ ID NO. 23)
<b>Ins Caypo (guinea pig)</b>	ELED PQYEQTELGMGLGAGGLQPLALEMALQ (SEQ ID NO. 24)

Ins_Crib	GYEDPQVAQLELGOGPGADDLQTLALEVAQQ (SEQ ID NO. 25)
Ins_Psaob	GYDDPQMPQLELGGSPGAGDLRALALEVARQ (SEQ ID NO. 26)
Ins_Ocide	ELEDLQVEQAELEAGGLQPSALEMILQ (SEQ ID NO. 27)
Q62543 (western wild mouse)	GGPGAGDLQTLALEVAQQ (SEQ ID NO. 28)
Q62542 (western wild mouse)	GSPGDLQTLALEVARQ (SEQ ID NO. 29)
Ins_Anapi (domestic duck)	DVEQPLVNGPLKGEVGELPPQHEEYQXX (SEQ ID NO. 30)
Ins_Chick (chicken)	DVEQPLYSSPLKGEAGYLPPQEEYEKV (SEQ ID NO. 31)

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Figure 2

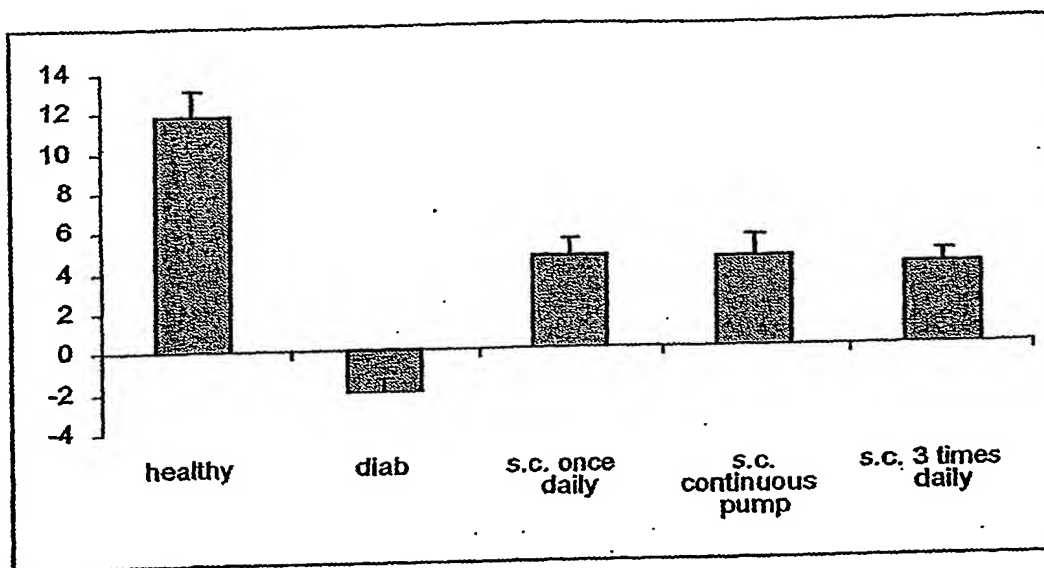
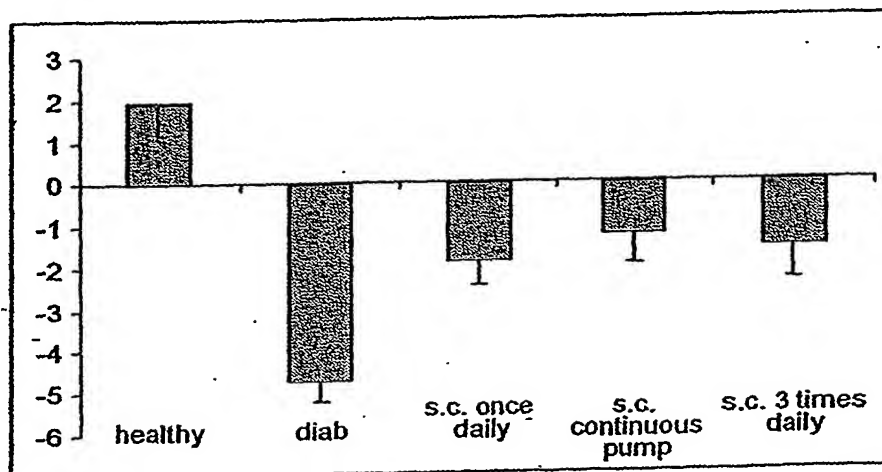
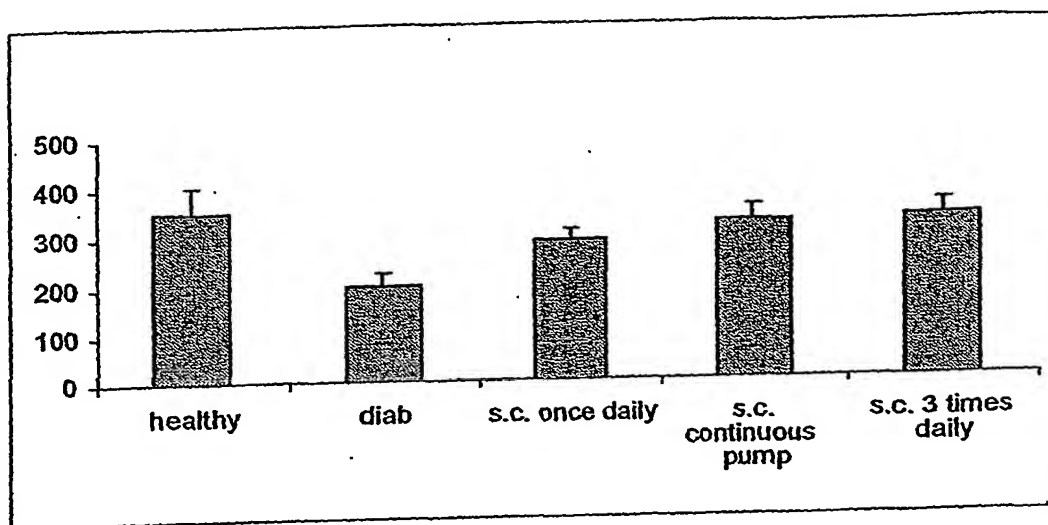


Figure 3



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Figure 4



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Figure 5

Teased fiber assessment of nodal and axonal morphometric changes in healthy controls and diabetic rats receiving C-peptide treatment for 8 weeks with different administration regimens

Frequency of fibers (%) showing	Non-Diabetic Controls	Diabetic untreated	C-peptide Treatment		
			Once Daily	Continuous infusion	Three times daily
Paranodal swelling	1.03 ± 0.16	7.60 ± 0.37	2.49 ± 0.15*	1.53 ± 0.18	1.78 ± 0.16
Paranodal demyelination	0.09 ± 0.08	2.22 ± 0.12	1.01 ± 0.13*	0.24 ± 0.10	0.45 ± 0.16
Excessive wrinkling	0.68 ± 0.07	3.63 ± 0.35	0.57 ± 0.14*	0.55 ± 0.11	0.58 ± 0.10
Axonal degeneration	0.30 ± 0.17	1.84 ± 0.39	0.43 ± 0.16*	0.30 ± 0.10	0.38 ± 0.19

Mean values ± SE are given

\* Significantly lower than the corresponding value for untreated diabetic animals, PC 0.01